

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claims 2 and 3, AMEND claims 1, 27, 28, 31 and 32, and ADD new claim 33 in accordance with the following:

1. (CURRENTLY AMENDED) A design support system for supporting design of a manufacturing line constituted by combination of a plurality of element types, said system comprising:

an element type database for storing information about said element types beforehand;
an indication section which indicates to an operator in a selectable manner said element types stored in said element type database;

a selection section ~~capable of selecting~~ enabling selection of arbitrary element types to be used for constituting said manufacturing line from among said element types indicated by said indication section;

an element type determination section for determining said element types or specifications of said element types based on said element types selected by said selection section;

a manufacturing line information preparation section for preparing information about said manufacturing line by ~~means of~~ acquiring information about said element types stored in said element type database ~~based on the basis of~~ based on said element types selected by said selection section; and

an output section ~~capable of~~ outputting information about said manufacturing line prepared by said manufacturing line information preparation section;

wherein said manufacturing line information preparation section prepares information about said manufacturing line based on said element types or said specifications of said element types determined by said element type determination section.

said element type database stores determination information in association with said element types, and said element type determination section determines said element types or specifications of said element types based on said determination information, and

said determination information is at least one of a conditional expression having information pertaining to another constituent element or element type complying with the selected element type, which would otherwise be caused when a first element type has been selected, and an incidental expression having information to be used for preventing reflection of information about a specific constituent element or element type in response to the selected element type, which would otherwise be caused when a second element type has been selected.

2. (CANCELLED)

3. (CANCELLED)

4. (ORIGINAL) The design support system according to claim 1, wherein said element type database stores manufacturing steps (processes and devices) employed in said manufacturing line, in association with element types relevant to said manufacturing steps.

5. (ORIGINAL) The design support system according to claim 3, wherein said element type database stores manufacturing steps (processes and devices) employed in said manufacturing line, in association with element types relevant to said manufacturing steps.

6. (ORIGINAL) The design support system according to claim 4, wherein said element type database hierarchically manages said manufacturing steps.

7. (ORIGINAL) The design support system according to claim 5, wherein said element type database hierarchically manages said manufacturing steps.

8. (ORIGINAL) The design support system according to claim 1, further comprising a component database which stores information about components constituting said element types.

9. (ORIGINAL) The design support system according to claim 4, further comprising a component database which stores information about components constituting said element types.

10. (ORIGINAL) The design support system according to claim 6, further comprising a component database which stores information about components constituting said element types.

11. (ORIGINAL) The design support system according to claim 8, wherein said component database performs sorting and extraction of information about said components registered in said component database while taking predetermined conditions as a key.

12. (ORIGINAL) The design support system according to claim 9, wherein said component database performs sorting and extraction of information about said components registered in said component database while taking predetermined conditions as a key.

13. (ORIGINAL) The design support system according to claim 10, wherein said component database performs sorting and extraction of information about said components registered in said component database while taking predetermined conditions as a key.

14. (ORIGINAL) The design support system according to claim 8, further comprising information about an engineering drawing of said components in association with said components, wherein said output section outputs information about an engineering drawing of said components.

15. (ORIGINAL) The design support system according to claim 9, further comprising information about an engineering drawing of said components in association with said components, wherein said output section outputs information about an engineering drawing of said components.

16. (ORIGINAL) The design support system according to claim 10, further comprising information about an engineering drawing of said components in association with said components, wherein said output section outputs information about an engineering drawing of said components.

17. (ORIGINAL) The design support system according to claim 11, further

comprising information about an engineering drawing of said components in association with said components, wherein said output section outputs information about an engineering drawing of said components.

18. (ORIGINAL) The design support system according to claim 12, further comprising information about an engineering drawing of said components in association with said components, wherein said output section outputs information about an engineering drawing of said components.

19. (ORIGINAL) The design support system according to claim 13, further comprising information about an engineering drawing of said components in association with said components, wherein said output section outputs information about an engineering drawing of said components.

20. (ORIGINAL) The design support system according to claim 1, further comprising:
information about the appearance of said element types; and
an appearance information preparation section for preparing information about the appearance of said manufacturing line on the basis of information about the appearance of said element types, wherein
said output section outputs information about the appearance of said manufacturing line prepared by said appearance information preparation section.

21. (ORIGINAL) The design support system according to claim 1, further comprising:
a manufacturing line information storage section which can store a plurality of pieces of information about said manufacturing line prepared by said manufacturing line information preparation section and which can extract and arrange said plurality of pieces of information about said manufacturing line under arbitrary conditions on the basis of details of said information about said manufacturing line; and
a line candidate indication section for indicating said extracted and arranged information about said manufacturing line as a candidate for said manufacturing line.

22. (ORIGINAL) The design support system according to claim 1, further comprising:
a condition input section which enables input of conditions pertaining to preparation of

information about said manufacturing line to be prepared by said manufacturing line information preparation section, wherein

said manufacturing line information preparation section selectively uses said plurality of element types on the basis of information about said element types stored in said element type database, thereby preparing information about said manufacturing line satisfying said conditions input by said condition input section.

23. (ORIGINAL) The design support system according to claim 1, further comprising: a data exchange section capable of exchanging data with an external information processing system.

24. (ORIGINAL) The design support system according to claim 23, wherein said external information processing system is a system for managing manufacturing costs of said manufacturing line;

said data exchange section acquires from said external information processing system information about manufacturing costs of said manufacturing line; and

said output section outputs said information about said manufacturing line prepared by said manufacturing line information preparation section and said information about manufacturing costs of said manufacturing line acquired by said data exchange section in such a manner that said pieces of information can be compared with each other.

25. (ORIGINAL) The design support system according to claim 23, wherein said external information processing system is a purchasing system, and said data exchange section transfers, to said purchasing system, said information about said manufacturing line prepared by said manufacturing line information preparation section.

26. (ORIGINAL) The design support system according to claim 24, wherein said external information processing system is a purchasing system, and said data exchange section transfers, to said purchasing system, said information about said manufacturing line prepared by said manufacturing line information preparation section.

27. (CURRENTLY AMENDED) The design support system according to claim 18, wherein said manufacturing line information preparation section computes at least the number of

components required to constitute said manufacturing line as information about said manufacturing line on the basis of said information about components constituting said element types stored in said component database.

28. (CURRENTLY AMENDED) The design support system according to claim 27, further comprising:

a data exchange section exchanging data with an external information processing system, wherein said data exchange section transfers at least the number of components required to constitute said manufacturing line to said external information processing system.

29. (ORIGINAL) The design support system according to claim 1, wherein information pertaining to said element types stored in said element type database comprises at least any of a manufacturing unit price, a delivery time, accuracy, a processing time, visual information, and comment, all pertaining to said element types.

30. (ORIGINAL) The design support system according to claim 1, wherein information about said manufacturing line is information pertaining to performance or a manufacturing cost of said manufacturing line.

31. (CURRENTLY AMENDED) A design support method for supporting design of a manufacturing line constituted by combination of a plurality of element types, said method comprising ~~the steps of:~~

(a) indicating to an operator in a selectable manner said element types stored in an element type database storing information about said element types beforehand;

(b) selecting arbitrary element types to be used for constituting said manufacturing line from among said element types indicated ~~in said step (a);~~

(c) determining said element types or specifications of said element types based on said element types selected;

(d) preparing information about said manufacturing line by ~~means of~~ acquiring information about said element types stored in said element type database based ~~on the basis of~~ said element types selected ~~in said step (b);~~ and

(e) outputting the prepared information about said manufacturing line ~~prepared in said step (c);~~

wherein preparation of the information about said manufacturing line is based on said element types or said specifications of said element types determined,

said element type database stores determination information in association with said element types, and the determining of said element types or specifications of said element types is based on said determination information, and

said determination information is at least one of a conditional expression having information pertaining to another constituent element or element type complying with the selected element type, which would otherwise be caused when a first element type has been selected, and an incidental expression having information to be used for preventing reflection of information about a specific constituent element or element type in response to the selected element type, which would otherwise be caused when a second element type has been selected.

32. (CURRENTLY AMENDED) A computer-readable recording medium which stores a design support program for supporting design of a manufacturing line constituted by combination of a plurality of element types, said program instructing a computer to perform ~~the steps of operations comprising:~~

(a) indicating to an operator in a selectable manner said element types stored in an element type database storing information about said element types beforehand;

(b) selecting arbitrary element types to be used for constituting said manufacturing line from among said element types indicated ~~in said step (a);~~

(c) determining said element types or specifications of said element types based on said element types selected;

(ed) preparing information about said manufacturing line by ~~means of~~ acquiring information about said element types stored in said element type database based on ~~the basis of~~ said element types selected ~~in said step (b);~~ and

(de) outputting the prepared information about said manufacturing line ~~prepared in said step (c).~~

wherein preparation of the information about said manufacturing line is based on said element types or said specifications of said element types determined,

said element type database stores determination information in association with said element types, and determining of said element types or specifications of said element types is based on said determination information, and

said determination information is at least one of a conditional expression having information pertaining to another constituent element or element type complying with the selected element type, which would otherwise be caused when a first element type has been selected, and an incidental expression having information to be used for preventing reflection of information about a specific constituent element or element type in response to the selected element type, which would otherwise be caused when a second element type has been selected.

33. (NEW) A method, comprising:
- providing stored selectable information of element types in relation to a manufacturing line;
 - receiving a selection from the provided information of the element types and determining element types and specification corresponding to the selected information for forming the manufacturing line; and
 - outputting information of the manufacturing line responsive to the received selection in accordance with the stored information of the element types, wherein the stored information of the element types is associated with conditions defining a relationship of the element types to a constituent element or other element types.